

WHAT IS CLAIMED IS:

1. A disc drive comprising:  
a selection means for positioning a transducer at a select point in space;  
and  
a conducting means for providing electrical connection between the transducer and an external circuit.
2. A flexible circuit comprising an electrically conductive element and a dielectric liquid crystal substrate laminated to the conductive element.
3. The flexible circuit of claim 2 wherein the conductive element comprises copper.
4. The flexible circuit of claim 2 wherein the dielectric liquid crystal <sup>substrate</sup> has a thickness less than about 0.001 inches.
5. The flexible circuit of claim 2 wherein the dielectric liquid crystal <sup>substrate</sup> has a thickness from about 0.0001 in to about 0.0005 in.
6. The flexible circuit of claim 2 wherein the dielectric liquid crystal substrate comprises a polyester.
7. The flexible circuit of claim 2 wherein the dielectric liquid crystal substrate has a dielectric constant from about 2.6 to about 3.0.
8. The flexible circuit of claim 2 wherein the dielectric liquid crystal substrate has a coefficient of thermal expansion from about 15 ppm/°C to about 19 ppm/°C.
9. The flexible circuit of claim 2 wherein the dielectric liquid crystal substrate has a coefficient of humidity expansion of less than about 4 ppm/%relative humidity.

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10. The flexible circuit of claim 2 wherein the dielectric liquid crystal substrate has an elastic modulus from about 900 kpsi to about 1300 kpsi.

11. The flexible circuit of claim 2 further comprising a cover coating forming protective coating over at least a portion of the conductive element.

12. The flexible circuit of claim 2 wherein the liquid crystal substrate comprises a thermoplastic.

13. A suspension assembly comprising a transducer head supported on an adjustable arm and a flexible circuit of claim 1 wherein the flexible circuit is electrically connected to the transducer head.

14. A disc drive comprising at least one data storage disc and a suspension assembly of claim 13.

15. The disc drive of claim 14 wherein the data storage disc comprises a magnetic disc.

16. A method for producing a flexible circuit comprising joining a dielectric liquid crystal polymer substrate to an electrically conductive element.

17. The method of claim 16 wherein the electrically conductive element is heat welded to the liquid crystal polymer substrate.

18. The method of claim 16 wherein the liquid crystal polymer substrate comprises a thermoplastic.

19. The method of claim 16 further comprising applying a cover element over the electrically conductive element.

20. A method for making a disc drive comprising forming a flexible circuit using the method of claim 16.

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